

## CLAIMS

1. An apparatus for determining an optimum promotion plan for merchandising of products for sale, comprising:  
a scenario/results processor, configured to enable a user to prescribe an optimization scenario, and configured to present the optimum promotion plan to said user, wherein the optimum promotion plan is determined by execution of said optimization scenario, and wherein the optimum promotion plan is determined based upon estimated product demand and calculated activity based costs, said scenario/results processor comprising:  
an input/output processor, configured to acquire data corresponding to said optimization scenario from said user, and configured to distribute optimization results to said user;  
and  
a scenario controller, coupled to said input/output processor, configured to control the acquisition of said data and the distribution of said optimization results in accordance with a promotion plan optimization procedure.

2. The apparatus as recited in claim 1, wherein said data is acquired from said user over the Internet via a packet-switched protocol.
3. The apparatus as recited in claim 2, wherein said packet-switched protocol comprises TCP/IP protocol.
4. The apparatus as recited in claim 1, wherein said data is interactively provided by and said optimization results are interactively distributed to said user.
5. The apparatus as recited in claim 4, wherein said data is acquired from a source electronic file and said optimization results are distributed to a destination electronic file, said electronic files being designated by said user.
6. The apparatus as recited in claim 1, wherein said input/output processor comprises:  
a template controller, configured to provide first promotion plan optimization templates and second promotion plan optimization templates, wherein said promotion plan optimization templates are presented to said user to allow for prescription of said optimization scenario, and for distribution of said optimization results; and

a command interpreter; configured to extract commands from said first promotion plan optimization templates executed by said user, and configured to populate said second promotion plan optimization templates according to result data provided for presentation to said user.

7. The apparatus as recited in claim 6, wherein said first and second promotion plan optimization templates are provided according to hypertext markup language (HTML).
8. The apparatus as recited in claim 6, wherein said first and second promotion plan optimization templates are provided according to extensible markup language (XML).
9. The apparatus as recited in claim 6, wherein said first and second promotion plan optimization templates are provided as Java applets.
10. The apparatus as recited in claim 6, wherein said first promotion plan optimization templates comprise:  
a plurality of new scenario templates, configured to enable said user to prescribe scenario parameters corresponding to said optimization scenario.
11. The apparatus as recited in claim 10, wherein said plurality of new scenario templates comprises:

a promotion event configuration template, for  
prescribing said potential promotion events.

12. The apparatus as recited in claim 11, wherein said plurality of new scenario templates further comprises:  
a supplier offer configuration template, for  
prescribing said potential supplier offers.

13. The apparatus as recited in claim 11, wherein said plurality of new scenario templates further comprises:  
a promotion scenario configuration template, for  
associating said potential promotion events to the products, wherein said promotion scenario configuration template allows said user to specify a forward buy method, allowable potential supplier offers, rules that constrain said optimization scenario, and store merchandising capacities.

14. The apparatus as recited in claim 11, wherein said plurality of new scenario templates further comprises:  
an optimization template, for specifying a promotion scenario and a time period for which the optimum promotion plan is to be determined.

15. The apparatus as recited in claim 6, wherein said second promotion plan optimization templates comprise:

an optimization results template, for providing said user with said result data corresponding to said optimization scenario.

16. The apparatus as recited in claim 15, wherein said result data comprises selected ones of said potential promotion events and selected ones of said potential supplier offers.
17. The apparatus as recited in claim 16, wherein said result data is presented graphically.
18. A method for providing an interface to an apparatus for optimizing a promotion plan for merchandising products, comprising:  
utilizing a computer-based scenario/results processor within an optimization server to present a sequence of data entry templates to a user, whereby the user specifies an optimization scenario, the optimization server optimizing the promotion plan according to modeled market demand for the products and calculated demand chain costs for the products; and  
generating a plurality of optimization results templates and providing these templates to the user, wherein optimum promotion events and optimum supplier offers are presented.

19. The method as recited in claim 18, wherein said utilizing comprises:  
acquiring data corresponding to the optimization scenario from the user; and  
formatting the data into a format suitable for performing a promotion plan optimization according to the optimization scenario.
20. The method as recited in claim 19, wherein said acquiring comprises:  
obtaining the data from the user over a data network that employs a packet-switched protocol.
21. The method as recited in claim 20, wherein said acquiring further comprises:  
employing TCP/IP protocol to obtain the data over the Internet.
22. The method as recited in claim 19, wherein the data is interactively provided by the user.
23. The method as recited in claim 19, wherein the data is acquired from a source electronic file that is designated by the user.
24. The method as recited in claim 18, wherein the data entry templates and the optimization results templates are generated in hypertext markup language (HTML).

25. The method as recited in claim 18, wherein the data entry templates and the optimization results templates are generated in extensible markup language (XML).
26. The method as recited in claim 18, wherein the data entry templates and the optimization results templates are generated as Java applets.
27. The method as recited in claim 18, wherein said utilizing comprises:
- first providing a promotion event configuration template, for prescribing potential promotion events; and
  - second providing a supplier offer configuration template, for prescribing potential supplier offers.
28. The method as recited in claim 27, wherein said utilizing further comprises:
- third providing a promotion scenario configuration template, for associating the potential promotion events to the products, wherein said third providing comprises:
    - specifying a forward buy method;
    - enabling/disabling certain ones of the potential supplier offers;

adding rules and constraints to the optimization  
scenario; and  
indicating store merchandising capacities.

29. The method as recited in claim 18, wherein said  
utilizing comprises:  
providing an optimization template, for specifying a  
promotion scenario and a time period for which the  
optimum promotion events and optimum supplier  
offers are to be determined.
30. The method as recited in claim 18, wherein said  
generating comprises:  
providing an optimization results template, for  
supplying the user with scenario results  
corresponding to the optimization scenario,  
wherein the scenario results include selected ones  
of the potential promotion events and selected  
ones of the potential supplier offers.